### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-018976

Address: 333 Burma Road **Date Inspected:** 21-Dec-2010 City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Zhu Feng **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component: TOWER & OBG Components** 

**Summary of Items Observed:** 

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY#10

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007863

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as OBG and Tower

Components. The weld designation reviewed as follows:

**BIKE PATH** 

BK004A1-033-043; 044 - Green Tag#13879 BK007A1-001-043; 044 - Green Tag#13880

TOWER LIFT-5. ANGLE PLATE

GTSA5-C/G-25~32 – Green Tag#13935

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No.

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

## 007868

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designation reviewed as follows:

TOWER LIFT-6, TOWER HEAD COMPONENT

SSD1-FFSA6-1-23B – Green Tag#13936

#### **BAY#11**

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 007867

Magnetic Particle Testing (MT)

This QA inspector performed MT of the area previously tested and accepted by ZPMC Quality Control personnel.

This QA Inspector generated an MT report for this date. The member is identified as OBG and Tower

Components. The weld designation reviewed as follows:

**BIKE PATH** 

BK004ASD1-023-009; 020; 012; 008; 025; 013

#### **BLAST SHOP#1**

This QA Inspector observed the following work in progress

During the Internal post-blast visual inspection on West tower Lift-4 from 131 M diaphragm (TOP) to 146 M elevation, this Quality Assurance Inspector's (QA) discovered the defects required welding and Magnetic particle testing on weld and base material at the following locations:

- 1) Skin 'D' Base material arc gouge –500 mm from top and 830 mm from D/E corner.
- 2) Skin 'C' Base material arc gouge–On the edge of 1st stiffener from skin 'B' inside 143 M diaphragm.
- 3) Skin 'C' Base material arc gouge–On the edge of 2nd stiffener from skin 'B' inside 143 M diaphragm.
- 4) Skin 'C' Base material arc gouge–On the edge of 3rd stiffener from skin 'B' inside 143 M diaphragm.
- 5) Skin 'E' Lack of fusion –Diaphragm to stiffener weld (1st from skin 'D') at 139 M diaphragm (TOP).
- 6) Skin 'E' Underfill Diaphragm to fit-lug weld (1st from skin 'A') 139 M diaphragm (TOP).
- 7) Skin 'A' Base material arc gouge at 139 m diaphragm (bottom) close to skin 'E' 1st stiffener.
- 8) Skin 'E' Base material arc gouge edge of the 1st stiffener from skin 'D' and 400 mm from 135 M diaphragm (top).
- 9) Skin 'E' Under fill diaphragm to skin weld close to A/E corner at 135 M diaphragm (top).
- 10) Skin 'A' Base material arc gouge close to 1st stiffener from skin 'D' at 131 M diaphragm (top).

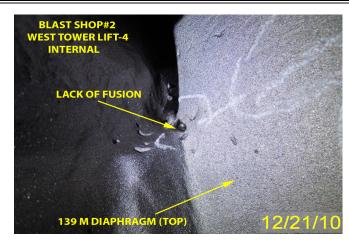
For further information, please see the attached pictures below.

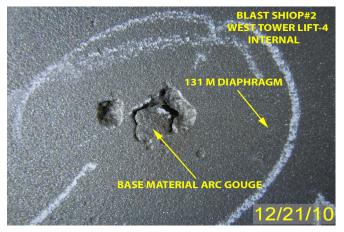
Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)







# **Summary of Conversations:**

No Relevant Conversations.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho- 15002048250, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar,Sandeep	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer